

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

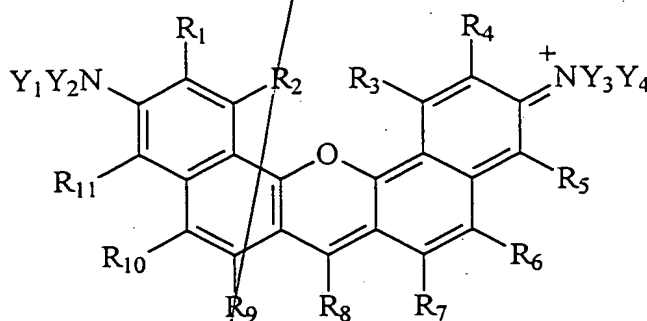
- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

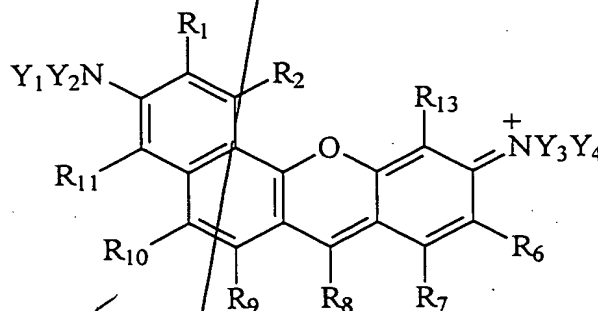
**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

WE CLAIM:

1. An extended rhodamine compound having the structure



or,



wherein

R_1 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_1 taken together with R_2 , Y_1 , or Y_2 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_2 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_2 taken together with R_1 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_3 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_3 taken together with R_4 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_4 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$,

P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₄ taken together with R₃, Y₃, or Y₄ is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z₁, heteroalkyleno, heteroalkyleno independently substituted with one or more Z₁, aryleno, aryleno independently substituted with one or more Z₁, heteroaryleno, and heteroaryleno independently substituted with one or more Z₁;

R₅ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₅ taken together with R₆, Y₃, or Y₄ is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z₁, heteroalkyleno, heteroalkyleno independently substituted with one or more Z₁, aryleno, aryleno independently substituted with one or more Z₁, heteroaryleno, and heteroaryleno independently substituted with one or more Z₁;

R₆ taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z₁, heteroalkyl, heteroalkyl independently substituted with one or more Z₁, aryl, aryl independently substituted with one or more Z₁, heteroaryl, heteroaryl independently substituted with one or more Z₁, arylalkyl, arylalkyl independently substituted with one or more Z₁, heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z₁, halogen, -OS(O)₂OR, -S(O)₂OR, -S(O)₂R, -S(O)₂NR, -S(O)R, -OP(O)O₂RR, -P(O)O₂RR, -C(O)OR, -NRR, -NRRR, -NC(O)R, -C(O)R, -C(O)NRR, -CN, and -OR, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R₆ taken together with R₅, R₇, Y₃, or Y₄ is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z₁, heteroalkyleno, heteroalkyleno independently substituted with one or

more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_7 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein
 R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_7 taken together with R_6 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_8 is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 ;

R_9 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein
 R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_9 taken together with R_{10} is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 ,

aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_{10} taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{10} taken together with R_9 or R_{11} is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_{11} taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of -H, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{11} taken together with R_{10} , Y_1 or Y_2 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_{13} taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl

independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of $-\text{H}$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{13} taken together with Y_3 or Y_4 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroarylno, and heteroarylno independently substituted with one or more Z_1 ;

Y_1 taken alone is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_1 taken together with R_1 , R_{11} or Y_2 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkylno, heteroalkylno independently substituted with one or more Z_1 , arylno, arylno independently substituted with one or more Z_1 , heteroarylno, and heteroarylno independently substituted with one or more Z_1 ;

Y_2 taken alone is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_2 taken together with R_1 , R_{11} or Y_1 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkylno, heteroalkylno independently substituted with one or more Z_1 , arylno, arylno independently substituted with one or more Z_1 , heteroarylno, and heteroarylno independently substituted with one or more Z_1 ;

Y_3 taken alone is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl

independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_3 taken together with R_4 , R_5 , R_6 , R_{13} or Y_4 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

Y_4 is absent, or Y_4 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_4 taken together with R_4 , R_5 , R_6 , R_{13} or Y_3 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ; and

Z_1 is selected from the group consisting of, $-R$, halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, $-O$ and $-OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group.

2. The compound of **claim 1** wherein Y_1 is taken together with R_1 or R_{11} and is C_2 or C_3 alkyleno or alkyleno independently substituted with one or more Z_1 , or Y_2 is taken together with R_1 or R_{11} and is C_2 or C_3 alkyleno or alkyleno independently substituted with one or more Z_1 , or Y_3 is taken together with R_4 or R_5 or R_6 or R_{13} and is C_2 or C_3 alkyleno or alkyleno independently substituted with one or more Z_1 , or Y_4 is taken together with R_4 or R_5 or R_6 or R_{13} and is C_2 or C_3 alkyleno or alkyleno independently substituted with one or more Z_1 .

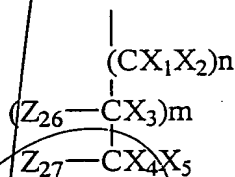
3. The compound of **claim 2** wherein the C_2 or C_3 substituted alkyleno is gem disubstituted with C_1 to C_3 alkyl.

4. The compound of **claim 3** wherein the C_2 or C_3 substituted alkylene is gem disubstituted with methyl.

5. The compound of **claim 1** wherein R_8 is alkyl independently substituted with one or more substituents selected from the group consisting of halogen, $-C(O)R$, and $-S(O)_2R$ wherein R is independently selected from the group consisting of $-OH$, O-alkyl, $-NH_2$, N-alkyl and linking group.

6. The compound of **claim 1** wherein R_8 is $-CF_3$.

7. The compound of **claim 1** wherein R_8 is



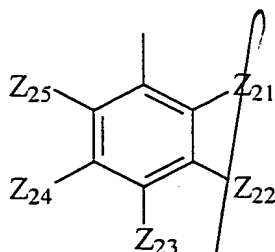
wherein Z_{26} and Z_{27} are each independently selected from the group consisting of hydrogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-NC(O)R$, R , and $-OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, and X_1 , X_2 , X_3 , X_4 , and X_5 are each independently selected from the group consisting of hydrogen, $-Cl$, $-Br$ and $-F$, wherein n and m are integers each independently ranging from 0 to 5.

8. The compound of **claim 7** wherein X_1 and X_2 are $-H$.

9. The compound of **claim 7** wherein X_1 , X_2 , X_4 and X_5 are each $-F$.

10. The compound of **claim 1** wherein R_8 is aryl or aryl independently substituted with one or more Z_1 .

11. The compound of **claim 1** wherein R_8 has the structure



wherein Z_{21} , Z_{22} , Z_{23} , Z_{24} and Z_{25} each taken separately are Z_1 .

12. The compound of **claim 11** wherein Z_{21} , Z_{22} , Z_{23} , Z_{24} and Z_{25} are each independently selected from the group consisting of $-H$, halogen, C_1 to C_3 alkyl, $-C(O)OR$, $-C(O)R$, $-S(O)_2OR$, $-S(O)_2R$, and $-CH_2OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group.

13. The compound of **claim 11** wherein one or more of Z_{21} , Z_{22} , Z_{23} , Z_{24} or Z_{25} is $-Cl$ or $-F$.

14. The compound of **claim 11** wherein Z_{21} is $-C(O)OH$.

15. The compound of **claim 11** wherein Z_{21} is $-C(O)OH$ and one of Z_{23} or Z_{24} is $-C(O)OH$.

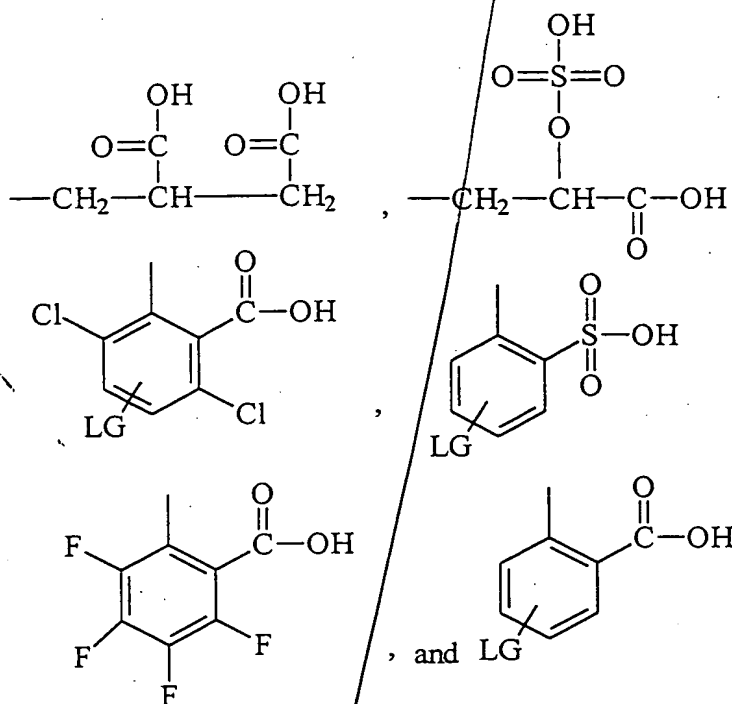
16. The compound of **claim 11** wherein Z_{22} and Z_{25} are each $-Cl$.

17. The compound of **claim 11** wherein Z_{22} , Z_{23} , Z_{24} and Z_{25} are each $-F$.

18. The compound of **claim 11** wherein Z_{21} is $-S(O)_2OH$ and one of Z_{23} or Z_{24} is $-C(O)OH$.

19. The compound of **claim 11** wherein Z_{21} is $-C(O)OR$ and one of Z_{22} , Z_{23} , or Z_{24} is linking group.

20. The compound of **claim 1** wherein R_8 is selected from the group consisting of



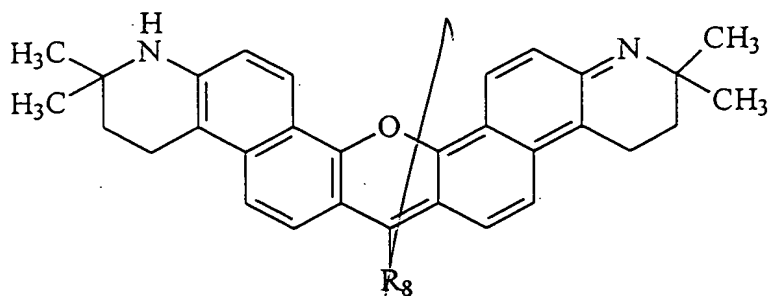
21. The compound of **claim 1** wherein at least one of Y_1 , Y_2 , Y_3 , or Y_4 taken separately is selected from the group consisting of $-H$, alkyl, aryl and arylalkyl.

22. The compound of **claim 1** wherein one or more of R_1 , R_4 , R_5 , R_6 , R_7 , R_9 , R_{10} , R_{11} and R_{13} is each independently $-S(O)_2OH$.

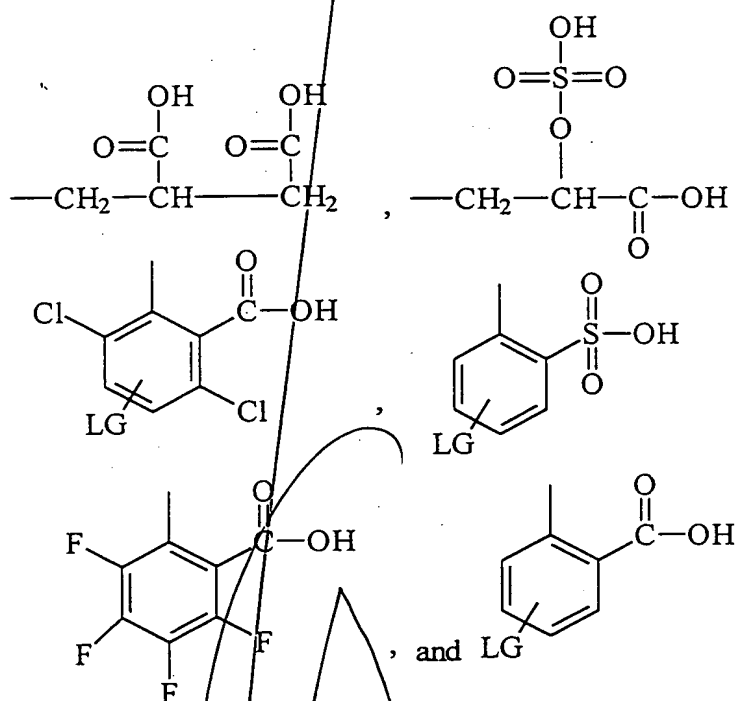
23. The compound of **claim 1** wherein one or more of R_1 , R_4 , R_5 , R_6 , R_7 , R_9 , R_{10} , R_{11} and R_{13} are each independently $-F$ or $-Cl$.

24. The compound of **claim 1** wherein one or more of R_1 , R_4 , R_5 , R_6 , R_7 , R_9 , R_{10} , R_{11} and R_{13} is each independently aryl or aryl independently substituted with one or more Z_1 .

25. The compound of **claim 1** having the structure

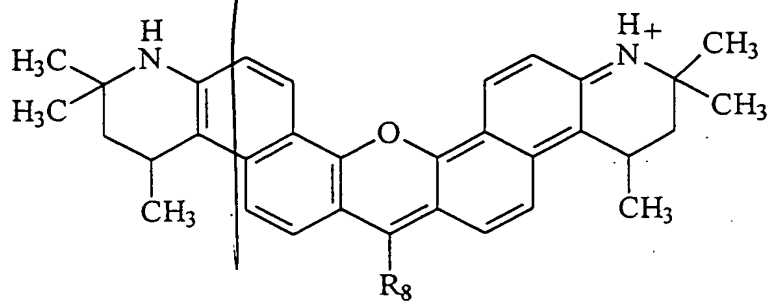


wherein R_8 is selected from the group consisting of

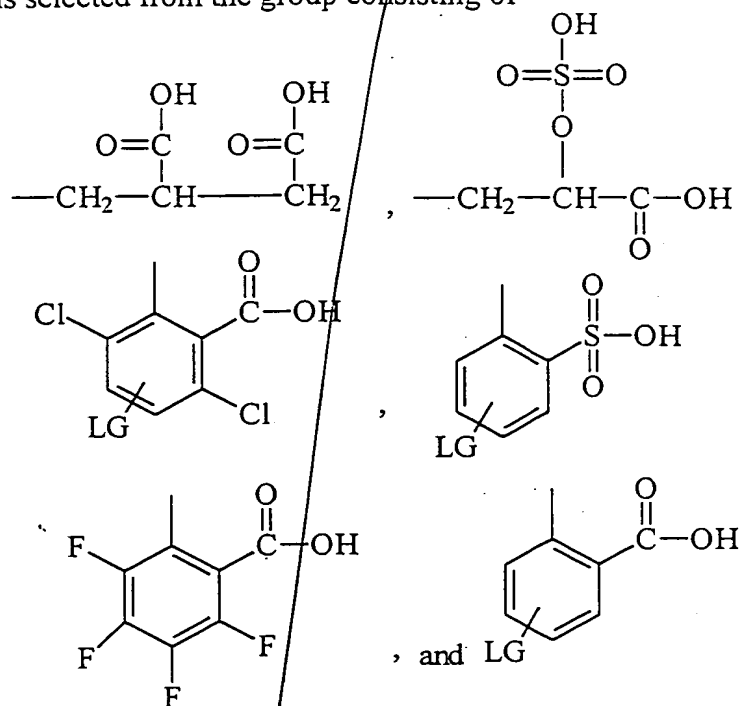


wherein LG is linking group.

26. The compound of **claim 1** having the structure

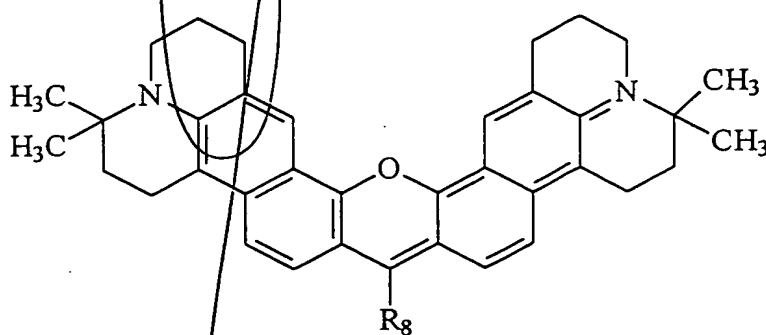


wherein R₈ is selected from the group consisting of

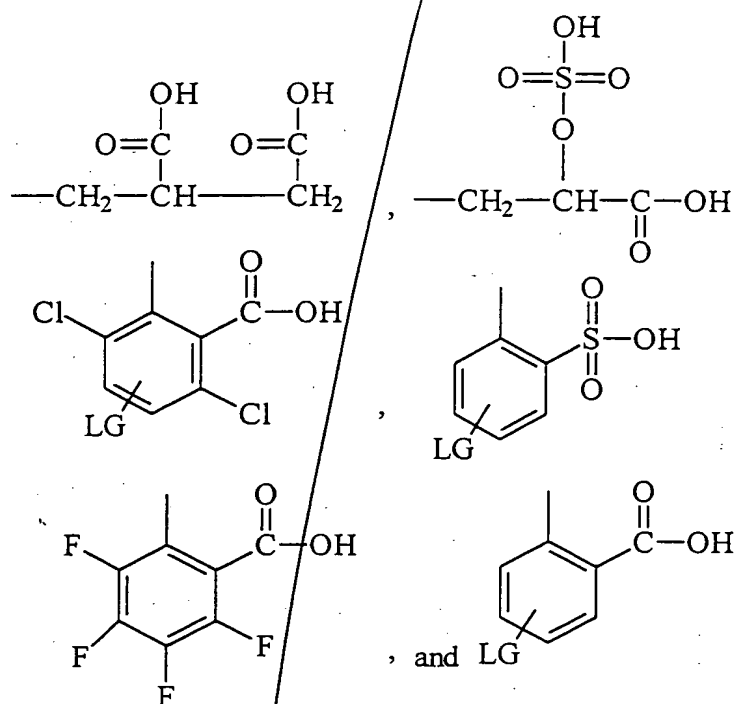


wherein LG is linking group.

27. The compound of **claim 1** having the structure

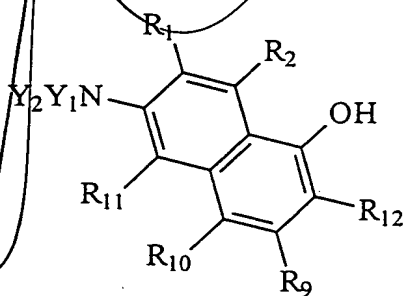


wherein R_8 is selected from the group consisting of



wherein LG is linking group.

20 28. An intermediate useful for the synthesis of extended rhodamine compounds having the structure



wherein

25 R_1 taken alone is selected from the group consisting of -H, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted

with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of $-\text{H}$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_1 taken together with R_2 , Y_1 , or Y_2 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

R_2 taken alone is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of $-\text{H}$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_2 taken together with R_1 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

R_3 is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 ;

R_4 taken alone is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or

more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of $-\text{H}$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_9 taken together with R_{10} is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

R_{10} taken alone is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of $-\text{H}$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{10} taken together with R_9 or R_{11} is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 , arylene, arylene independently substituted with one or more Z_1 , heteroarylene, and heteroarylene independently substituted with one or more Z_1 ;

R_{11} taken alone is selected from the group consisting of $-\text{H}$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, heteroarylalkyl independently substituted with one or more Z_1 , halogen, $-\text{OS}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{OR}$, $-\text{S}(\text{O})_2\text{R}$, $-\text{S}(\text{O})_2\text{NR}$, $-\text{S}(\text{O})\text{R}$, $-\text{OP}(\text{O})\text{O}_2\text{RR}$, $-\text{P}(\text{O})\text{O}_2\text{RR}$, $-\text{C}(\text{O})\text{OR}$, $-\text{NRR}$, $-\text{NRRR}$, $-\text{NC}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{R}$, $-\text{C}(\text{O})\text{NRR}$, $-\text{CN}$, and $-\text{OR}$, wherein R is independently selected from the group consisting of $-\text{H}$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group, or, R_{11} taken together with R_{10} , Y_1 or Y_2 is selected from the group consisting of alkylene, alkylene independently substituted with one or more Z_1 , heteroalkylene, heteroalkylene independently substituted with one or more Z_1 ,

aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

R_{12} is selected from the group consisting of $-H$ and $-C(O)R_3$;

Y_1 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_1 taken together with R_1 , R_{11} or Y_2 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ;

Y_2 taken alone is selected from the group consisting of $-H$, alkyl, alkyl independently substituted with one or more Z_1 , heteroalkyl, heteroalkyl independently substituted with one or more Z_1 , aryl, aryl independently substituted with one or more Z_1 , heteroaryl, heteroaryl independently substituted with one or more Z_1 , arylalkyl, arylalkyl independently substituted with one or more Z_1 , heteroarylalkyl, and heteroarylalkyl independently substituted with one or more Z_1 , or Y_2 taken together with R_1 , R_{11} or Y_1 is selected from the group consisting of alkyleno, alkyleno independently substituted with one or more Z_1 , heteroalkyleno, heteroalkyleno independently substituted with one or more Z_1 , aryleno, aryleno independently substituted with one or more Z_1 , heteroaryleno, and heteroaryleno independently substituted with one or more Z_1 ; and

Z_1 is selected from the group consisting of, $-R$, halogen, $-OS(O)_2OR$, $-S(O)_2OR$, $-S(O)_2R$, $-S(O)_2NR$, $-S(O)R$, $-OP(O)O_2RR$, $-P(O)O_2RR$, $-C(O)OR$, $-NRR$, $-NRRR$, $-NC(O)R$, $-C(O)R$, $-C(O)NRR$, $-CN$, $-O$ and $-OR$, wherein R is independently selected from the group consisting of $-H$, alkyl, heteroalkyl, aryl, heteroaryl, arylalkyl, heteroarylalkyl and linking group.

29. The compound of claim 28 wherein Y_1 is taken together with R_1 or R_{11} and is C_2 or C_3 alkyleno or alkyleno independently substituted with one or more Z_1 , or Y_2 is taken together

with R_1 or R_{11} and is C_2 or C_3 alkylene or alkylene independently substituted with one or more Z_1 .

30. The compound of **claim 29** wherein the C_2 or C_3 substituted alkylene is gem
5 disubstituted with C_1 to C_3 alkyl.

31. The compound of **claim 30** wherein the C_2 or C_3 substituted alkylene is gem
disubstituted with methyl.

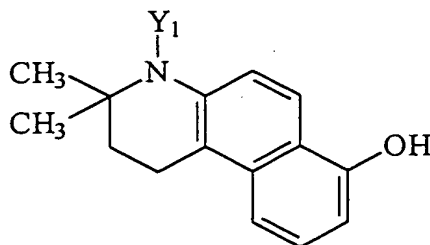
10 32. The compound of **claim 28** wherein at least one of Y_1 or Y_2 taken separately is
selected from the group consisting of $-H$, alkyl, aryl and arylalkyl.

15 33. The compound of **claim 28** wherein one or more of R_1 , R_2 , R_9 , R_{10} and R_{11} is each
independently $-S(O)_2OH$.

34. The compound of **claim 28** wherein one or more of R_1 , R_2 , R_9 , R_{10} and R_{11} is each
independently $-F$ or $-Cl$.

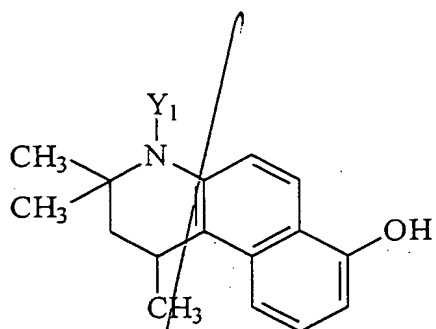
20 35. The compound of **claim 28** wherein one or more of R_1 , R_2 , R_9 , R_{10} and R_{11} is each
independently aryl or aryl independently substituted with one or more Z_1 .

36. The compound of **claim 28** having the structure



25 37. The compound of **claim 28** having the structure

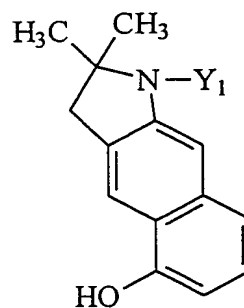
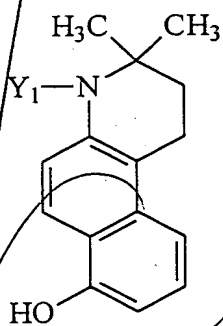
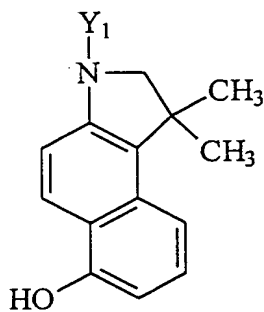
5



10

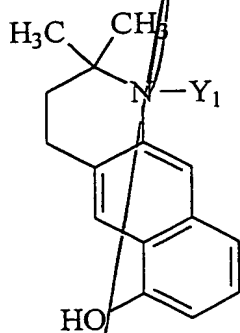
38. The compound of **claim 28** which is selected from the group consisting of

15



20

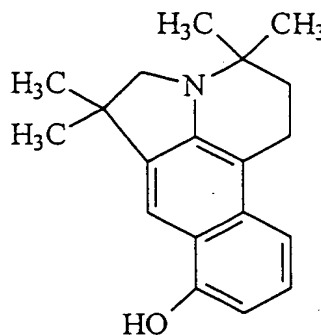
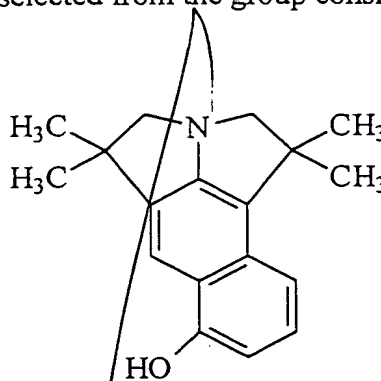
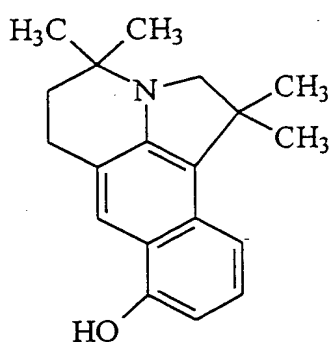
and



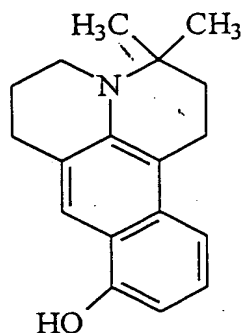
25

30

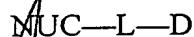
39. The compound of **claim 28** selected from the group consisting of



and ,



40. A labeled nucleoside/side having the formula:



wherein

NUC is a nucleoside/tide or nucleoside/tide analog;

L is a linkage;

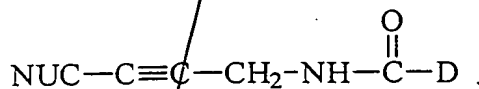
D is an extended rhodamine dye compound of **claim 1**;

wherein if NUC comprises a purine base, the linkage is attached to the 8-position of the purine, if NUC comprises a 7-deazapurine base, the linkage is attached to the 7-position of the 7-deazapurine, and if NUC comprises a pyrimidine base, the linkage is attached to the 5-position of the pyrimidine.

41. The labeled nucleoside/tide of **claim 40** wherein NUC comprises a base selected from the group consisting of uracil, cytosine, deazaadenine, and deazaguanosine.

42. The labeled nucleoside/tide of **claim 40** wherein NUC is a nucleotide terminator compound.

43. The labeled nucleoside/tide of **claim 40** having the structure



44. A method of fragment analysis comprising the steps of:

10 forming one or more labeled polynucleotide fragments, the fragments being labeled with an extended rhodamine compound of **claim 1**;

resolving the one or more labeled polynucleotide fragments; and

detecting the resolved labeled polynucleotide fragments.

15 45. The method of **claim 44** wherein the resolving step is an electrophoretic size-dependent separation process and the one or more labeled polynucleotide fragments are detected by fluorescence.

20 *Handwritten signature: AB*